

ABSTRACT

An aluminum-based extruded neutron absorber comprising a body portion consisting of an aluminum alloy containing boron or a boron compound including isotopes having the ability to absorb neutrons at a boron content of 20-40% by mass; and a surface layer portion consisting of an aluminum alloy whose boron content is 1% by mass or less, and a production method thereof. An aluminum alloy material is prepared as an extruded material or a can, a boron or boron compound powder is mixed with an aluminum alloy powder, and when using a can, the can is filled with the mixed powder to form a preliminary compact, and when using an extruded material the mixed powder is press-formed to produce a preliminary compact, which is then extruded. A neutron absorber that exhibits excellent neutron absorbing ability, and excels in heat dissipation, workability and weldability is obtained.